II. AMENDMENTS TO THE CLAIMS:

Listing of Claims:

1-32. (Canceled)

33. (Original): A method of tissue culturing processing comprising the steps of:
determining at least one transplant growth criterion appropriate to a given plant species;
placing a tissue culture growth media and a plurality of explants in a first environment;
nurturing at least an initial growth of said explants in said first environment;
establishing said at least one transplant growth criterion for a substantial portion of said plurality of initially grown explants while situated in said first environment;
extruding said initially grown explants and at least some of said tissue culture media from said first environment at a time when said transplant growth criterion is substantially established;
inserting said initially grown explants and at least some of said tissue culture media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment; and
secondarily growing said initially grown explants.

34. (Original): A method of tissue culturing processing according to claim 33 and further comprising the steps of
supplying a synthetic retentive capability; and
maintaining said synthetic retentive capability during said step of extruding said initially grown explants and at least some of said tissue culture media from said first environment at a time when said transplant growth criterion is substantially established and said step of inserting said initially grown explants and at least some of said tissue culture media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment.

35. (Original): A method of tissue culturing processing according to claim 34 and further comprising the step of properly balancing said synthetic retentive capability with a plant yield ability.

36. (Original): A method of tissue culturing processing according to claim 33 wherein said step of placing a tissue culture growth media and a plurality of explants in a first environment comprises the step of placing said tissue culture growth media and a plurality of explants in a first matrix of transplant containers.

37. (Original): A method of tissue culturing processing according to claim 33 wherein said step of establishing said at least one transplant growth criterion for a substantial portion of said plurality of initially grown explants while situated in said first environment comprises the step of affirmatively establishing said at least one transplant growth criterion for a substantial portion of said plurality of initially grown explants while situated in said first environment.

38. (Original): A method of tissue culturing processing according to claim 33 wherein said steps of extruding said initially grown explants and at least some of said tissue culture media from said first environment at a time when said transplant growth criterion is substantially established and inserting said initially grown explants and at least some of said tissue culture media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment comprises the step of simultaneously extruding said initially grown explants and at least some of said tissue culture media from said first environment at a time when said transplant growth criterion is substantially established and simultaneously inserting said initially grown explants and at least some of said tissue culture media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment.

39. (Original): A method of tissue culturing processing according to claim 33 wherein said step of inserting said initially grown explants and at least some of said tissue culture

media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment comprises the step of continuately inserting said initially grown explants and at least some of said tissue culture media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment.

40. (Original): A method of tissue culturing processing according to claim 33 wherein said step of nurturing at least an initial growth of said explants in said first environment comprises the step of adding at least one nourishment solution to said tissue culture growth media and said explants.

41. (Original): A method of tissue culturing processing according to claim 33 wherein said step of placing a tissue culture growth media and a plurality of explants in a first environment comprises the step of placing said tissue culture growth media and said plurality of explants in dense population.

42. (Previously presented): A method of tissue culturing processing according to claim 33 wherein said step of inserting said initially grown explants and at least some of said tissue culture media from said first environment in a second environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment comprises the step of inserting said initially grown explants and at least some of said tissue culture media from said first environment in a less dense population than said first environment immediately after extruding said initially grown explants and at least some of said tissue culture media from said first environment.

43. (Original): A method of tissue culturing processing according to claim 33 and further comprising the steps of

growing said explant into a plantlet; and

placing said plantlet into a new medium selected from the group consisting of soil, peat moss, peat, bark, inorganic substances, organic substances, gravel, sand, natural substances, man-made substances, clay, liquid, finishing media, and prefinishing media.

44-59. (Canceled)

60. (Previously presented): A method of tissue culturing processing according to claim 33 wherein said step of placing a tissue culture growth media and a plurality of explants in a first environment comprises the step of placing said plurality of explants on a surface of a porous framework and wherein said step of nurturing at least an initial growth of said explants in said first environment comprises the step of adding at least one nourishment solution to said porous framework.

61. (Previously presented): A method of tissue culturing processing according to claim 60 and further comprising the step of substantially uniformly distributing said at least one nourishment solution throughout said porous framework.

62. (Previously presented): A method of tissue culturing processing according to claim 61 wherein said step of substantially uniformly distributing said at least one nourishment solution throughout said porous framework comprises the step of almost equally distributing said at least one nourishment solution throughout said porous framework.

63. (Canceled)

64. (Previously presented): A method of tissue culturing processing according to claim 60 and further comprising the step of amply contacting at least part of said explant to said at least one nourishment solution.

65. (Previously presented): A method of tissue culturing processing according to claim 64 wherein said step of placing said plurality of explants on a surface of a porous framework comprising the step of placing each of said plurality of explants in a pocket of said porous framework; wherein said step of amply contacting at least part of said explant to said at least one nourishment solution comprises the step of contacting said at least one explant to a surface of said pocket at a percentage contact value, said percentage contact value selected from the group consisting of:

- greater than about 25%;
- greater than about 30%; and
- greater than about 35%.

66. (Canceled)

67. (Previously presented): A method of tissue culturing processing according to claim 60 wherein said step of adding at least one nourishment solution comprises the step of adding a first nourishment solution to said porous framework.

68. (Original): A method of tissue culturing processing according to claim 67 and further comprising the steps of:
adding a second nourishment solution to said porous framework;
balancing retentive exchange capacities with removal exchange capacities of said first nourishment solution in said porous framework; and
affirmatively removing said first nourishment solution from said porous framework with said second nourishment solution.

69. (Previously presented): A method of tissue culturing processing according to claim 68 wherein said step of balancing retentive exchange capacities with removal exchange capacities of said first nourishment solution in said porous framework comprises the step of providing a removal pressure of said first nourishment solution greater than a retentive force of first nourishment solution to said porous framework.

70. (Previously presented): A method of tissue culturing processing according to claim 68 wherein said step of affirmatively removing said first nourishment solution from said porous framework with said second nourishment solution comprises the step of substantially removing said first nourishment solution from said porous framework.

71. (Canceled)

72. (Previously presented): A method of tissue culturing processing according to claim 68 wherein said step of adding a second nourishment solution to said porous framework comprises the step of adding a refresher solution of said first nourishment solution to said porous framework.

73. (Previously presented): A method of tissue culturing processing according to claim 60 and further comprising the step of defining a plurality of substantially uniform interstitial voids within said porous framework.

74. (Previously presented): A method of tissue culturing processing according to claim 73 wherein said step of defining a plurality of substantially uniform interstitial voids within said porous framework comprises the step of defining a plurality of substantially uniform interstitial voids having a size difference of less than about 25%.

75. (Previously presented): A method of tissue culturing processing according to claim 73 wherein said step of defining a plurality of substantially uniform interstitial voids within said porous framework comprises the step of defining at least some large and at least some small voids.

76. (Previously presented): A method of tissue culturing processing according to claim 75 wherein said step defining large and small voids comprises the step of providing a ratio of said large to small voids selected from the group consisting of:

- about 3 to about 40; and
- about 5 to about 40.

77. (Canceled)

78. (Previously presented): A method of tissue culturing processing according to claim 60 and further comprising the step of providing an undistorted growth transport field of said porous framework.

79. (Canceled)

80. (Previously presented): A method of tissue culturing processing according to claim 60 and further comprising the step of optimally balancing air to said at least one nourishment solution within said porous framework.

81. (Previously presented): A method of tissue culturing processing according to claim 80 wherein said step of optimally balancing air to said at least one nourishment solution within said porous framework comprises the step of providing about a 50% of air and about a 50% of nourishment solution in said porous framework.

82-167. (Canceled)

168. (Currently amended): [[(66)]] A method of tissue culturing processing according to claim 64 wherein said step of placing said plurality of explants on a surface of a porous framework comprising the step of placing each of said plurality of explants in a pocket of said porous framework; wherein said step of amply contacting at least part of said explant to said at least one nourishment solution comprises the step of contacting said at least one explant to a surface of said pocket at a percentage contact value, said percentage contact value selected from the group consisting of:

- greater than about 15%;
- greater than about 20%;
- greater than about 25%;
- greater than about 30%; and
- greater than about 35%.

169. (Currently amended): [[(71)]] A method of tissue culturing processing according to claim 60 wherein said step of adding at least one nourishment solution comprises the step of selecting an application of the addition of said solutions from the group consisting of spraying, sprinkling, dripping, pouring and injecting.

170. (Currently amended): [[(77)]] A method of tissue culturing processing according to claim 73 wherein said step of defining a plurality of substantially uniform interstitial

voids within said porous framework comprises the step of providing a total void volume of said porous structure selected from the group consisting of:

- about 10%;
- about 20%;
- about 30%;
- about 40%;
- about 50% and
- about 60%.

171. (Currently amended): [[(82)]] A method of tissue culturing processing according to claim 80 wherein said step of optimally balancing air to said at least one nourishment solution within said porous framework comprises the step of providing a ratio of air to nourishment solution selected from the group consisting of:

- about 20% air to about 80% nourishment solution;
- about 30% air to about 70% nourishment solution;
- about 40% air to about 60% nourishment solution;
- about 50% air to about 50% nourishment solution;
- about 60% air to about 40% nourishment solution;
- about 70% air to about 30% nourishment solution; and
- about 80% air to about 20% nourishment solution.

172. (Currently amended): [[(84)]] A method of tissue culturing processing according to claim 33 wherein said step of placing a plurality of explants in said first environment comprises the step of automatically placing a plurality of explants in said first environment.

173. (Currently amended): [[(87)]] A method of tissue culturing processing according to claim 33 wherein said steps of extruding and inserting comprises the step of automatically extruding and inserting.

174. (Currently amended): [[(92)]] A method of tissue culturing processing according to claim 40 wherein said step of adding said at least one nourishment solution to said tissue

culture growth media and said explants comprises the step of automatically adding said at least one nourishment solution to said tissue culture growth media and said explants.